

### REMARKS

Initially, Applicants would like to thank the Examiner for the telephone interview with their counsel on May 13, 2004. The interview was conducted to discuss all of the issues raised in the advisory office action and earlier correspondence. Prior to the interview, Applicants sent to the Examiner a letter to facilitate discussion. A copy of this letter is attached hereto as "Exhibit A" to serve as a partial interview summary.

In the sole interest of moving this application towards allowance, Applicants have limited claim 23 to the specific ligands recited in original claims 30 and 35 and have also limited claim 46 to the specific ligands recited in original claim 51. The above amendments have necessitated cancellation of claims 28-35, 39, 44, and 51. Note that claims 1-22 have already been canceled in the response filed on August 11, 2003. No new matter has been introduced by the above amendments.

Claims 23-27, 36-38, 40-43, 45-50, and 52-54 are currently pending. Reconsideration of the application, as amended, is respectfully requested in view of the remarks below.

In the advisory action, the Examiner only maintains the non-enablement rejection of claims 23-29, 31-34, 36-50, and 52-54, among which only claims 23 and 46 are independent. Claims 23 and 46 are drawn to tetragonal supramolecules and hexagonal supramolecules, respectively. As mentioned above, Applicants have limited claims 23 and 46 to specific ligands. During the telephone interview, the Examiner indicated that the Specification has provided adequate support for the supramolecules containing these specific ligands, and that these amendments would place this application in condition for allowance. See the interview summary issued by the Examiner, a copy of which is attached hereto as "Exhibit B." Thus, Applicants request that the rejection of claims 23 and 46, as well as the other pending claims, be withdrawn.

### CONCLUSION

Applicants submit that the ground for rejection asserted by the Examiner has been overcome, and that claims 23-27, 36-38, 40-43, 45-50, and 52-54, as pending, define subject matter that is enabled. On this basis, it is submitted that all claims are now in condition for allowance, an action of which is requested.

Applicant : Kuang-Lieh Lu et al  
Serial No. : 10/056,269  
Filed : January 24, 2002  
Page : 12 of 12

Attorney's Docket No.: 08919-077001 / 13A-900603

Enclosed is a check for the Petition for Extension of Time fee. Please apply any other charges to deposit account 06-1050, referencing Attorney's Docket No. 08919-077001.

Respectfully submitted,

Date: 7-26-04

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May 10, 2004

## VIA FACSIMILE

Examiner Mark L. Berch  
P.O. Box 1450  
Alexandria, VA 22313-1450

Re: PRISMATIC SUPRAMOLECULES

Application No.: 10/056,269  
Our Ref.: 08919-077001



BOSTON

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WASHINGTON, DC

Dear Examiner Berch:

Thank you for granting a telephone interview, scheduled for May 13, 2004 at 11:00 AM, to discuss issues raised in the advisory action and earlier correspondence. This letter outlines what we would like to discuss with you during the telephone interview.

In the advisory action, you have withdrawn all of the rejections except for the non-enablement rejection against claims 23-29, 31-34, 36-50, 52-54. We plan to limit our telephone discussion to independent claims 23 and 46, which cover a tetragonal supramolecule and a hexagonal supramolecule, respectively.

As you may recall, during the telephone interview on November 14, 2003, you pointed out that the structure of a supramolecule has to be accurately determined by X-ray diffraction and that NMR may not be sufficient for this purpose. We subsequently submitted four references with our response to the final office action. All four references describe determining the structures of supramolecules without using X-ray. In the advisory action, you state that these four references "are of no value in enablement" on two grounds. We traverse each ground below.

(1) You point out that the four references do not describe the claimed hexagonal or tetragonal supramolecules, or anything similar. See the advisory action, page 4, lines 3-5. We would like to bring to your attention that the supramolecules covered by claims 23 and 46 are novel. The just-mentioned four references, of course, could not have described these novel compounds.

All of the four references show that the structure of a supramolecule can be accurately determined by a combination of analytical methods (e.g.,  $^1\text{H}$  and  $^{13}\text{C}$  NMR, MS, IR, and element analysis) without using X-ray diffraction. These analytical methods are well known for determining structures of organic compounds. One skilled in the art

Examiner Mark L. Berch

May 10, 2004

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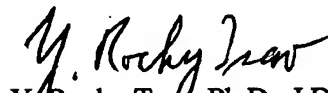
would know how to use them to accurately determine the structures of supramolecules covered by claims 23 and 46 without using X-ray diffraction.

(2) You assert that "the analytical methods described in these four references are not necessarily relevant. Roche relied on a crystal structure to determine its form. The other three all relied on  $^{31}\text{P}$ -NMR on the P atoms attached to the metals. Such is not possible here." See the advisory action, page 4, lines 14-17.

We disagree. First, Roche only describes the crystal structure of a starting material (i.e., compound 1). It does not rely on this crystal structure to determine the structure of the product (i.e., compound 2). Indeed, the structure of compound 2 was determined by  $^1\text{H}$  NMR and ES-MS, not by X-ray diffraction (which requires use of crystals of compound 2). Second, although the other three references mention  $^{31}\text{P}$ -NMR, they all describe using a combination of analytical techniques, rather than relying on  $^{31}\text{P}$ -NMR alone, to determine the structure of a supramolecule. Indeed, it is impossible to use  $^{31}\text{P}$ -NMR alone to determine the structure of a supramolecule. Thus, the analytical methods described in these four references are clearly relevant.

We would like to expedite the prosecution by inviting your supervisor to this interview. If you agree, please provide a copy of this letter to your supervisor before the interview.

Very truly yours,



Y. Rocky Tsao, Ph.D., J.D.  
Reg. No. 34,053

YRT/txz



# UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/056,269	01/24/2002	Kuang-Lieh Lu	08919-077001 / 13A-900601	8557
26161	7590	05/26/2004	EXAMINER	
FISH & RICHARDSON PC 225 FRANKLIN ST BOSTON, MA 02110			BERCH, MARK L	
			ART UNIT	PAPER NUMBER
			1624	

DATE MAILED: 05/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

RECEIVED

JUN 01 2004

FISH & RICHARDSON, P.C.  
BOSTON OFFICE

Docketed By Practice Systems
Action Code: <u>Statement</u>
Base Date: <u>5/26/04</u>
Due Date: <u>6/26/04</u>
Deadline: <u>6/26/04</u>
Initial: <u>vbk</u>

Docketed By Billing Secretary
Due Date: _____
Deadline: _____
Initials: _____

### Interview Summary

Application No.

10/056,269

Applicant(s)

LU ET AL.

Examiner

Mark L. Berch

Art Unit

1624

All participants (applicant, applicant's representative, PTO personnel):

(1) Mark L. Berch.

(3) Tony Zhang.

(2) Rocky Tsao.

(4) \_\_\_\_.

Date of Interview: 13 May 2004.

Type: a) ☒ Telephonic b) ☐ Video Conference  
c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☐ No.  
If Yes, brief description: \_\_\_\_.

Claim(s) discussed: all.

Identification of prior art discussed: The four cited references.

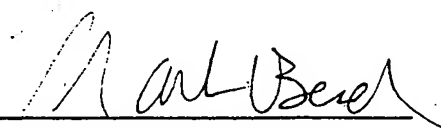
Agreement with respect to the claims f) ☐ was reached. g) ☒ was not reached. h) ☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Examiner set forth why one skilled in the art cannot determine if the specialized genomtry is presnt when the materials are not crystalline. Claims limited to the named ligands would be acceptable. Claims limited to the crystalline form would not be, as most tetrudentate lingands would still not make the desired complexes.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

  
Examiner's signature, if required

## Summary of Record of Interview Requirements

### Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

### Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews

#### Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

#### 37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,  
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

### Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.